

IN THE CLAIMS

Please amend the claims as follows.

1. (previously canceled).

2. (currently amended) An apparatus for electroplating and thereby forming a metal film by way of an electroplating method, said apparatus comprising:

~~a plating bath provided in a plating chamber containing a holder for holding a substrate used in a large scale integration process and containing a plating bath;~~

a pre-treating chamber, in which a pre-treatment of an ~~article~~ said substrate to be plated is conducted, and

D | a transportation chamber connected to said pre-treating chamber by a first gate valve and connected to said plating chamber by a second gate valve,

wherein said pre-treating chamber, said transportation chamber, and said ~~electroplating~~ chamber are combined to be maintained together in a non-oxidative atmosphere.

3. (previously canceled).

4. (currently amended) An apparatus for electroplating as claimed in claim 2, wherein:

said non-oxidative atmosphere is selected from the group

consisting of a rare gas atmosphere, a nitrogen gas atmosphere and a hydrogen gas atmosphere.

5-7. (previously canceled).

8. (currently amended) An apparatus for electroplating as claimed in claim 2, wherein:

said plating chamber includes a gas supply port for supplying said non-oxidative gas to said plating chamber and a gas evacuation port for evacuating gas contained in the plating chamber.

D/ 9. (currently amended) An apparatus for electroplating as claimed in claim 2, wherein:

said metal is a copper film,

said plating chamber includes means for embedding said copper film in a groove or a connecting hole of ~~an article to be plated~~ said substrate in said plating bath, and

~~whereby~~ voids formed in said copper film include an inert gas forming said non-oxidative layer, and such that said copper film may be heat treated without oxidation of said film.

10. (previously canceled).

11. (currently amended) An apparatus for electroplating as

claimed in claim 2, wherein:

D1 each of said pre-treating chamber, said transportation chamber, and said ~~electroplating~~ chamber individually includes with an inert gas supply and a gas exhaust.

Please add the following new claims.

D2 12. (new) An apparatus for electroplating as claimed in claim 2, wherein said plating bath comprises a plating solution for forming a plating on said substrate, said plating bath being maintained in said non-oxidative atmosphere, said plating containing a void having said non-oxidative atmosphere disposed therein.

13. (new) An apparatus for electroplating as claimed in claim 2, wherein said transportation chamber includes a transportation robot disposed therein, said transportation robot transporting said substrate.

14. (new) An apparatus for electroplating as claimed in claim 2, wherein said transportation chamber is connected to a post-treating chamber by a third gate valve, connected to a loading side wafer container by a fourth gate valve, and connected to an unloading side wafer container by a fifth gate valve.
